

VOLUME 108, NUMBER 1
(Published 18 August 1998)

CONTENTS

- | | | |
|--|----|---|
| R. Szczeniak, J. Zielinski and M. Mierzejewski | 1 | On the critical temperature for the phonon-induced superconductivity |
| P. Facci and M.P. Fontana | 5 | Evidence for structural and electronic anisotropy in CdS nanocrystal layers from Langmuir-Blodgett film precursors |
| A. Qteish and N. Shawagfeh | 11 | A first-principles pseudopotential study of the compressibility of ϵ -FeSi |
| C. Cantin, H. Daubric, J. Kliava and O. Kahn | 17 | Coexistence of anisotropic and motionally averaged EPR spectra in an Jahn-Teller system: Cu^{2+} ion in $[\text{Fe}(\text{NH}_2\text{trz})_3](\text{NO}_3)_2$ compound |
| T. Chatterji, K.D. Liß, G.J. McIntyre, M. Weiden, R. Hauptmann and C. Geibel | 23 | The ground state of NaV_2O_5 |
| L.-F. Yuan and B.-L. Gu | 27 | Comparison of electronic structures of single-wall carbon nanotubes and Br-doped counterparts |
| S. Steyaert, J.-M. Le Breton and J. Teillet | 33 | Quantitative investigation of the influence of addition elements on the oxidation of the $\text{Nd}_2\text{Fe}_{14}\text{B}$ phase |
| J.R. Alvarez and P. Rez | 37 | Electronic structure of stishovite |
| A. Grzechnik, V.B. Cajipe, C. Payen and P.F. McMillan | 43 | Pressure-induced phase transition in ferroelectric CuInP_2S_6 |
| D.C. Reynolds, D.C. Look, B. Jogai and R.J. Molnar | 49 | Phonon replicas associated with donor-bound-excitons in GaN |
| T. Schreiner, E.-W. Scheidt and G.R. Stewart | 53 | Interaction between entropy imbalance and superconductivity in $\text{U}_{1-x}\text{Th}_x\text{Be}_{13}$ |
| L.Z. Zhao, J.B. Zang, C.Y. Xu and S.H. Liu | 59 | Electrodeposition of large $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ crystals from molten KOH/KNO_3 solution |
| E. Sudhakar Reddy, P.V. Patanjali, R. Vijayaraghavan, E.V. Sampathkumaran and R. Pinto | 63 | Search for superconductivity in $\text{Gd}_{2-x}\text{Ce}_x\text{Sr}_2\text{Cu}_2\text{TiO}_y$ |

I Keywords

VOLUME 108, NUMBER 2
(Published 21 August 1998)

CONTENTS

- | | | |
|---|-----|---|
| P.S. Anil Kumar, P.A. Joy and S.K. Date | 67 | Comparison of the low field magnetic behavior of $\text{Ln}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ ($\text{Ln} = \text{La}, \text{Pr}$) |
| U. Hoppe, R. Kranold and E. Gattf | 71 | An X-ray diffraction study of the structure of vitreous V_2O_5 |
| L. De Caro, C. Giannini, L. Tapfer, H.-P. Schönherr, L. Däweritz and K.H. Ploog | 77 | Validity of Vegard's rule for the lattice parameter and the stiffness elastic constant ratios of the AlGaAs ternary compound |
| V.A. Kosobukin | 83 | Optical model of excitons in a quantum well with randomly rough interfaces |
| J. Lu, X. Zhang, X. Zhao and L. Zhang | 89 | Valence-band electronic structure of the simple-cubic C_{60} |
| Z. Hajnal, P. Deák, Th. Köhler, R. Kaschner and Th. Frauenheim | 93 | Theoretical study of the luminescent substoichiometric silicon oxides (SiO_x) |
| C.P. Chang, R.B. Chen and Y.T. Lu | 99 | Magnetoexciton in the thin AlAs/GaAs quantum well |
| G. Mohs, T. Aoki, R. Shimano, M. Kuwata-Gonokami and S. Nakamura | 105 | On the gain mechanism in GaN based laser diodes |
| Y.-H. Dong, H.-J. Qian, W.-W. Ren, I. Krash, F.-Q. Liu, G. Meng, Z.-D. Lin and S.-C. Wu | 111 | Observation of an interface state in f.c.c. Fe epitaxially grown on $\text{Cu}\{111\}$ |
| P. Stenius and A.L. Ivanov | 117 | Relaxation kinetics of quasi two-dimensional excitons coupled to a bath of bulk acoustic phonons |

G.J. Lian, Z.H. Wang, J. Gao, Y.Q. Zhou,
J.F. Kang, M.Y. Li and G.C. Xiong

- 123 Anomalous resistance behavior observed across the inter-
face of superconducting $\text{YBa}_2\text{Cu}_3\text{O}_7$ and ferromagnetic
 $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$

I Keywords

VOLUME 108, NUMBER 3

(Published 4 September 1998)

CONTENTS

- | | |
|---|--|
| T. Jungwirth and A.H. MacDonald | 127 Spin-bottleneck resistance in magnetic-tunnel-junction devices |
| K.H. Lee and B.K. Choi | 133 Solid–vapor phase boundary of carbon at low temperature and low pressure |
| W.H. Lee and P.Y. Liu | 139 Short-time magnetic relaxation of a polycrystalline $\text{LuNi}_2\text{B}_2\text{C}$ superconductor |
| M. Ichida, K. Hayakawa, K. Matsuda,
A. Nakamura and I. Hirabayashi | 145 Femtosecond response of optical constants due to charge-transfer excitations in Nd_2CuO_4 |
| J.K. Jung, Y.M. Seo, S.H. Choh, Y.M. Park and
S.K. Song | 151 ^{14}N NQR study on reorientational motion in a mixed sytem $[(\text{CH}_2)_6\text{N}_4]_{1-x}[\text{KNO}_2]_x$ |
| G. Srinivasan, T.P. Mullin and S. Pendyala | 155 Magnetic transitions in (La, Cs)–Ca–Mn–O compounds |
| M.H. Kuok, S.G. Ng, L.S. Tan, Z.L. Rang,
M. Iwata and Y. Ishibashi | 159 A Brillouin study of the ferroelastic phase transition in $(\text{CH}_3\text{NH}_3)_3\text{Sb}_2\text{Br}_9$ |
| K.-M.H. Lenssen, M.E.J. Boonman,
J.R. Kraayeveld and C.T. Foxon | 165 Indications for band-structure effects in two-dimensional lateral superlattices |
| L.V. Giurgiu, O. Pană and R. Tătar | 171 Conductivity from solitonic energy band in $\text{K}_2\text{Pt}(\text{CN})_4\text{Br}_{0.3}\cdot 3.2\text{H}_2\text{O}$ system |
| C. Xu, Q. Jiang, H.-X. Cao and Z.-Y. Li | 177 Critical properties of mixed anisotropic Heisenberg spin system |
| A.A. Ghilarducci, H.R. Salva, A.J. Rivero and
F. Levy | 183 Origin of the anomalous elastic spectrum in $(\text{TaSe}_4)_2\text{I}$ |
| J. Tritt-Goc, N. Piślewski, L. Szczepańska and
R. Goc | 189 Dynamics of a glycine molecule in a new ferroelectric glycine phosphite studied by proton NMR |

I Keywords

VOLUME 108, NUMBER 4

(Published 9 September 1998)

CONTENTS

- | | |
|---|--|
| C. Benoit à la Guillaume, M. Combescot and
O. Betbeder-Matibet | 193 Exciton in front of a metallic mirror |
| N. Ben Brahim Aouani, L. Mandhour,
R. Bennaceur, S. Jaziri, T. Amand and X. Marie | 199 Thermodynamic equilibrium of screened exciton system by electron–hole plasma in the two-dimensional structure |
| J. Haetty, E.H. Lee, H. Luo, A. Petrou and
J. Warnock | 205 Type-I and type-II interband transitions in CdSe/ZnTe quantum well structures |
| X.-Q. Li and Y. Arakawa | 211 Dielectric function associated with dispersive optic-vibrations |
| L.A. Pérez and C. Wang | 215 Enhanced hole pairing in generalized Hubbard systems |
| S. Pantke and G.R. Stewart | 221 Multichannel Kondo effect in $\text{Y}_{0.8}\text{Zr}_{0.2-x}\text{U}_x\text{Pd}_3$ |
| J.F. Kang, G.C. Xiong, G.J. Lian, Y.Y. Wang
and R.Q. Han | 225 Epitaxial growth of $\text{CeO}_2(1\ 0\ 0)$ films on $\text{Si}(1\ 0\ 0)$ substrates by dual ion beams reactive sputtering |
| R. Narkowicz, R. Brazis and L. Safonova | 229 Exciton-polaritons in $\text{CdTe}/\text{CdMnTe}$ multiple quantum well structures |
| E.Z. Kurmaev, V.R. Galakhov, D.A. Zatsepin,
V.A. Trofimova, S. Stadler, D.L. Ederer,
A. Moewes, M.M. Grush, T.A. Callcott,
J. Matsuno, A. Fujimori and S. Nagata | 235 X-ray emission spectra and electronic structure of CuIr_2S_4 and CuIr_2Se_4 |

J.M. Kiat, G. Boemare, B. Rieu and D. Aymes	241	Structural evolution of LiOH: evidence of a solid-solid transformation toward Li ₂ O close to the melting temperature
Cz. Pawlaczyk, R. Jakubas and H.-G. Unruh	247	On the dynamic dielectric behaviour of (CH ₃ NH ₃) ₃ Sb ₂ I ₉ (MAIA) single crystals
Y.D. Dai, S.G. Wang and S.W. Du	251	Probing paring symmetry of superconductors by using r.f. SQUID
J. Huang and M. Wan	255	Temperature and pressure dependence of conductivity of polyaniline synthesized by <i>in situ</i> doping polymerization in the presence of organic function acid as dopants
J.S. Kim, K. Heuser and G.R. Stewart	261	Attempt to induce nFI behavior in Ce ₇ Ni ₃ with magnetic field
	I	Author Index
	V	Keywords

VOLUME 108, NUMBER 5

(Published 30 September 1998)

CONTENTS

A. Nag, D. Ghosh and B.M. Wanklyn	265	Measurements of magnetic susceptibilities and anisotropy of europium vanadate (EuVO ₄) crystal
H. Shaked	271	Calculation of the aligned fraction in polycrystalline samples with preferred orientation
J.I. Gorina, G.A. Kaljushnaia, V.P. Martovitsky, V.V. Rodin and N.N. Sentjurina	275	Comparative study of Bi2201 single crystals grown from solution melt and in cavities formed in KCl
K. Alami-Yadri, H. Wilhelm and D. Jaccard	279	Electrical resistivity of YbInAu ₂ and YbCuAl up to 8 GPa
R. Martin-Lopez, B. Lenoir, A. Dauscher, H. Scherrer and S. Scherrer	285	Preparation of <i>n</i> -type Bi-Sb-Te thermoelectric material by mechanical alloying
H. Suzuura, Yu.P. Svirko and M. Kuwata-Gonokami	289	Four-wave mixing theory in a cavity-polariton system
F. Wang, Z. Chen, Q. Gong, Y. Chen and H. Chen	295	Bi-functional host polymer based low glass transition temperature photorefractive composite
B. Thangaraju, R. Ganesan, K.S. Sangunni and E.S.R. Gopal	301	Photoacoustic measurement of the thermal diffusivity of Bi added Ge-Se and Ge-Se-Te glasses
M. Houzet and A.I. Buzdin	307	Thermodynamic properties of the spin-Peierls systems
S. Kishore, G. Markandeyulu and K.V.S. Rama Rao	313	Spin-flip metamagnetism in Laves phase compounds Dy _{0.73} Tb _{0.27} Fe _{2-x} Co _x H _n
N.V. Vo, J.E. Ostenson, J.O. Willis, J.L. Smith, H.K. Liu and S.X. Dou	319	Magnetization studies and irreversibility behavior of high- <i>T_c</i> superconducting Bi(Pb)-2223 multifilamentary Ag-sheathed PIT tapes prepared from differently synthesized precursor powders
T. Itoh and K. Fueki	325	Contour map of <i>T_c</i> of (La _{1-x} M _x) ₂ CuO _y [M; Ba, Sr and Ca]
D.Y. Lin, Y.S. Huang, Y.F. Chen and K.K. Tiong	331	Erratum: Contactless electroreflectance and piezorefectance of a two-dimensional electron gas at a GaN/AlGaIn heterointerface
	I	Keywords

VOLUME 108, NUMBER 6

(Published 2 October 1998)

CONTENTS

R.I. Eglitis, E.A. Kotomin and G. Borstel	333	Quantum chemical calculations of KTN solid solutions
S. Biermann, D. Hohl and D. Marx	337	Quantum effects in solid hydrogen at ultra-high pressure
U. Pustogowa, L. Szunyogh, H. Ebert and P. Weinberger	343	Spin-polarized X-ray emission spectroscopy of capped thin Co films on Cu(100)

S. Majumdar, R. Mallik, E.V. Sampathkumaran and P.L. Paulose	349	Residual resistivity ratio and its relation to the magnetoresistance behavior in LaMn_2Ge_2 -derived alloys
N.V. Agrinskaya and V.I. Kozub	355	Magnetoresistance related to on-site spin correlations in the nearest neighbor hopping conductivity
W.R.L. Lambrecht, A.G. Petukhov and B.T. Hemmelman	361	Schottky barrier formation at ErAs/GaAs interfaces: a case of Fermi level pinning by surface states
F. Firszt, A. Cichos, P. Dłużewski, U. Falke, M. Hietschold, J. Lenzner, S. Łęgowski, H. Męczyńska and W. Paszkowicz	367	Coexistence of 2H and 4H polytypes in $\text{Zn}_{1-x}\text{Mg}_x\text{Se}$ observed by photo- and cathodoluminescence
Zahirul Islam, C. Detlefs, A.I. Goldman, S.L. Bud'ko, P.C. Canfield and A. Zheludev	371	The magnetic structures of DyNi_2Ge_2
J.-I. Sakata, H. Sato, A. Miyazaki, T. Enoki, Y. Okano and R. Kato	377	Superconductivity in new organic conductor $\kappa\text{-(BEDSe-TTF)}_2\text{CuN(CN)}_2\text{Br}$
D.Y. Sun, D.J. Shu, X.G. Gong and L.W.M. Lau	383	Different melting behavior of lead surfaces
V.S. Gurin	389	<i>Ab-initio</i> calculations of small Cd_xS_y and Zn_xS_y ($x, y \leq 6$) clusters
V. Sridharan, K.V. Devadhasan, D.V. Natarajan, C.S. Sundar, J. Janaki, V.S. Sastry, Y. Hariharan and T.S. Radhakrishnan	393	Possible intermediate phase in the orientational ordering in solid C_{60} — a quasi adiabatic calorimetric study

I Keywords

VOLUME 108, NUMBER 7

(Published 16 October 1998)

CONTENTS

Announcement	iii	1998 Frank Isakson Prize
Y.R. Shen	399	1998 Frank Isakson prize address: Sum frequency generation for vibrational spectroscopy: applications to water interfaces and films of water and ice
T.P. Devereaux, A. Virosztek, A. Zawadowski, M. Opel, P.F. Müller, C. Hoffmann, R. Philipp, R. Nemetschek, R. Hackl, A. Erb, E. Walker, H. Berger and L. Forró	407	Enhanced electron-phonon coupling and its irrelevance to high T_c superconductivity
M. Yu and D.A. Drabold	413	Density dependence of the structural and electronic properties of amorphous GaN
G. Goerigk and D.L. Williamson	419	Nanostructured Ge distribution in $\alpha\text{-SiGe:H}$ alloys from anomalous small-angle X-ray scattering studies
P.W. Klamut, K. Rogacki and B. Dabrowski	425	Irreversibility fields and critical currents for pure and Y-substituted $\text{La}_{1.82}\text{Ca}_{1.18}\text{Cu}_2\text{O}_6$ superconductors
K. Kuriyama, K. Kushida and R. Taguchi	429	Optical band gap of the ordered filled-tetrahedral semiconductor LiMgP
Z.X. Liu, K.P. Korona, K. Syassen, J. Kuhl, K. Pakuła, J.M. Baranowski, I. Grzegory and S. Porowski	433	Effect of pressure on exciton energies of homoepitaxial GaN
R.N. Costa Filho, M.G. Cottam and G.A. Farias	439	Spin-wave interactions in ultrathin ferromagnetic films: the dipole-exchange regime
L.C. Tsai, J.C. Fan, Y.F. Chen and I. Lo	445	Study of persistent photoconductivity in semimetallic $\text{Al}_{0.2}\text{Ga}_{0.8}\text{Sb/InAs}$ quantum wells
H. Hamouda, H. Lassri, R. Krishnan and D. Saifaoui	451	Magnetic and magneto-optical studies in Co-Tb/Pt multilayers
M.K. Hudait and S.B. Krupanidhi	457	Correlation of compensation in Si-doped GaAs between electrical and optical methods
S. Broderick, V. Vescoli, B. Buschinger, W. Guth, O. Trovarelli, M. Weiden, L. Degiorgi, C. Geibel and F. Steglich	463	The zero-gap $\text{Ce}_3\text{Au}_3\text{Sb}_{4-x}$ system: a transport, thermodynamic and optical study
T.W. Kim, E. Oh and H.S. Park	469	Plasma-longitudinal optical phonon coupled modes in $\text{Zn}_{1-x}\text{Mg}_x\text{S}_y\text{Se}_{1-y}/\text{GaAs}$ heterostructures

- J. Fernández-Rossier, C. Tejedor and R. Merlin 473 Coherent-light emission from exciton condensates in semiconductor quantum wells
- S.M.M.R. Naqvi, S.D.H. Rizvi, S.M. Raza, A. Hussain, S. Rizvi and F. Rehman 479 Measurement of thermoelectric power in a series of liquid quenched FeZr amorphous alloys at relatively high temperature
- A. Kasi Viswanath, J.I. Lee, C.R. Lee, J.Y. Leem and D. Kim 483 Free exciton transitions and Varshni's coefficients for GaN epitaxial layers grown by horizontal LP-MOCVD
- X.-H. Lin and B.-X. Jiang 489 Similarity structure in the luminescence spectrum of GaAs:(N)
- A. Wójs and J.J. Quinn 493 Composite fermion approach to the quantum Hall hierarchy: when it works and why
- G. Balestrino, C. Ferdeghini, S. Gariglio, D. Marrè, P.G. Medaglia, G. Petrocelli and A.S. Siri 499 Magnetization and magnetoresistivity measurements on $[(\text{BaCuO}_2)_2/(\text{CaCuO}_2)_2]_N$ high T_c superconducting superlattices
- T.-W. Pi, C.-P. Cheng, I.-H. Hong and R.-T. Wu 503 A potassium doped μm thick C_{60} film: direct observations of threshold doping and phases evolution
- I Keywords

VOLUME 108, NUMBER 8

(Published 20 October 1998)

CONTENTS

- S. Schmidt, B. Wolf, M. Sieling, S. Zvyagin, I. Kouroudis and B. Lüthi 509 ESR modes in CsCuCl_3 in pulsed magnetic fields
- T. Ishii 513 Cluster-induced local distortion in ionic conductors—negative static expansion
- L.M. Molina, J.A. Alonso and M.J. Stott 519 Building alkali-lead intermetallic compounds from clusters
- N.M. Gasanly, A. Serpengüzel, O. Gürlü, A. Aydınli and İ. Yilmaz 525 Dependence of the photoluminescence of $\text{Tl}_2\text{InGaS}_4$ layered crystal on temperature and excitation intensity
- F. Calderón, J. Portelles and J.M. Siqueiros 531 The variation of the morphotropic zone in $\text{PbTi}_{1-x}\text{Sn}_x\text{O}_3$ ceramics by Na and Bi additions
- G.-F. von Blanckenhagen and G.R. Stewart 535 Ce_3Pt_4 —a local moment antiferromagnet with two metamagnetic transitions
- H.-J. Koo, M.-H. Whangbo, W.H. McCarroll, M. Greenblatt, R. Gautier, J.-F. Halet and P. Gougeon 539 On the origin of the anomalous electrical resistivity of LnMo_5O_8 (Ln = trivalent rare earth)
- Y. Zhu, K. Kimura and L.D. Zhang 545 Oxygen sensitivity to the fine structure on the optical spectra of silicon nanoparticles
- R.R. Rakhimov, A.L. Wilkerson, G.B. Loutts, M.A. Noginov, N. Noginova, W. Lindsay and H.R. Ries 549 Spin and valence states of manganese ions in manganese-doped yttrium orthoaluminate
- A. Onipko, Y. Klymenko, L. Malysheva and S. Stafström 555 Tunneling across molecular wires: an analytical exactly solvable model
- V. Grivickas 561 An accurate method for determining intrinsic optical absorption in indirect band gap semiconductors
- M.P.J. Punkkinen, K. Kokko and I.J. Väyrynen 567 Low-temperature specific heat of near-equiatomic Ni-rich $\text{B19}'$ – TiNi -alloys
- X. Chen 573 Photon drag in a single quantum well embedded in an asymmetric Fabry–Perot microcavity: local-field effects
- V.M. Aroutiounian, V.V. Bouniatian and S.Sh. Gevorgian 579 Response of HTSC films to modulated optical radiation
- D.B. Sibirtsev, A.V. Skripov, N. Natter and R. Hempelmann 583 Hydrogen in nanocrystalline Pd: a nuclear magnetic resonance study
- T.W. Kim, M.D. Kim and H.S. Park 587 Hydrogenation effects on the electrical and optical properties of p -type $\text{ZnS}_y\text{Se}_{1-y}$ epilayers grown on GaAs (100) substrates
- F. Grandjean, G.D. Waddill, T.R. Cummins, D.P. Moore, G.J. Long and K.H.J. Buschow 593 A cerium M -edge X-ray absorption study of the CeM_2 compounds, where M is Mg, Al, Fe, Co, Ni, Ru, and Rh

L. De Caro, C. Giannini, L. Tapfer, H.-P. Schönherr, L. Däweritz and K.H. Ploog	599	Validity of Vegard's rule for the lattice parameter and the stiffness elastic constant ratios of the AlGaAs ternary compound
J. Liu and D.C. Wu	605	Erratum: Bond-order soliton associated with a ring-torsion soliton in PNB and its IRAV mode
	I	Author Index
	VII	Keywords

VOLUME 108, NUMBER 9

(Published 3 November 1998)

CONTENTS

I. Bâldea, H. Köppel and L.S. Cederbaum	607	Interplay between dia- and paramagnetism in ensembles of mesoscopic Peierls rings in a magnetic flux
M. Tepe and D. Abukay	613	The effect of vanadium doping on superconducting properties of (Bi, Pb) ₂ Sr ₂ Ca ₂ (Cu _{1-x} V _x) ₃ O _y ceramics
L.J. Dunne, E.J. Brändas, J.N. Murrell and V. Coropceanu	619	Group theoretical identification of active localized orbital space in high T_c cuprate superconductors
F.H. Leiter, D.M. Hofmann, A. Hofstaetter, B.K. Meyer and S.I. Nikitin	625	Optically detected magnetic resonance on Cr ³⁺ centres in KZnF ₃
N. Bouchaala, E.A. Kotomin, V.N. Kuzovkov and M. Reichling	629	F center aggregation kinetics in low-energy electron irradiated LiF
H. Taguchi	635	Relationship between crystal structure and electrical properties of murdochite-type Ni _{6+2x} Mn _{1-x} O ₈
P. Wachter, F. Bommeli and M. Filzmoser	641	Phonons in TmTe
M.D. Efremov, V.V. Bolotov, V.A. Volodin and S.A. Kochubei	645	Raman scattering anisotropy in a system of (110)-oriented silicon nanocrystals formed in α -Si film
Ismunandar, B.J. Kennedy and B.A. Hunter	649	Temperature dependent neutron powder diffraction study of Bi ₃ (GaSb ₂)O ₁₁
G.A. Tompsett, R.J. Phillips, N.M. Sammes and A.M. Cartner	655	Characterisation of LaGdO ₃ by X-ray powder diffraction and Raman spectroscopy
X.L. Wang, J. Horvat, H.K. Liu and S.X. Dou	661	Large irreversible magnetization arising from the domain freezing in La _{0.7} Ca _{0.3} MnO ₃ perovskite
C. Ji, J. Yang, W. Mao, Y. Yang, W. Li and X. Yu	667	High performance 2:17 type SmCo permanent magnets with low temperature coefficients
K.K. Mahato, D.K. Rai and S.B. Rai	671	Optical studies of Sm ³⁺ doped oxyfluoroborate glass
H. Kawamura, N. Matsui, I. Nakahata, K. Nakano, M. Kobayashi, Y. Akahama, K. Nagata and Y. Miyamoto	677	Pressure-induced metallization and structural transition of rhombohedral Se
C.R. Wang, Z.Y. Su and S.T. Lin	681	Conductivity and magnetoconductivity of a new series of Al ₇₀ Pd _{22.5} (Re _{1-x} Ru _x) _{7.5} quasicrystals
C.-H. Chou	687	A new electron density profile in the liquid-vapor interface of liquid mercury from data of X-ray reflectivity
T. Hashimoto, N. Matsushita, Y. Murakami, N. Kojima, K. Yoshida, H. Tagawa, M. Dokiya and T. Kikegawa	691	Pressure-induced structural phase transition of LaCrO ₃
R.N. Bera and B. Mallik	695	Temperature-dependent unusual changes in the factor (γ) representing photocurrent-light intensity characteristics for some ferrocene derivatives
J.H. Wang, H.Y. Chen, J.H. Wu, Z.X. Liu, T.Y. Chen and D.S. Dai	701	The shift of the magnetic transition temperature in perovskite manganese oxides caused by magnetostriction
	I	Keywords

VOLUME 108, NUMBER 10

(Published 5 November 1998)

CONTENTS

- | | | |
|---|-----|---|
| L.A. Golovan, B.A. Markov, P.K. Kashkarov and V. Yu. Timoshenko | 707 | Evaporation effect on laser induced solid–liquid phase transitions in CdTe and HgCdTe |
| R. Feder, J. Henk and B. Johansson | 713 | Magnetic dichroism in threshold photoemission |
| P.I. Arseyev and N.S. Maslova | 717 | Small size tunneling contacts with superconductors |
| A. Avella, F. Mancini and D. Villani | 723 | The overdoped regime in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ |
| D. Sa | 727 | Static vacancies in a one-dimensional Heisenberg model |
| Y. Takagaki and K.H. Ploog | 733 | Influence of the lead on the transmission resonance in semiconductor–superconductor microjunctions |
| P.D. Haynes and M.C. Payne | 737 | Failure of density-matrix minimization methods for linear-scaling density-functional theory using the Kohn penalty-functional |
| W.P. Santos, A.L.A. Fonseca, D.A. Agrello and O.A.C. Nunes | 743 | Photoinduced phonon fluorescence in $\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}\text{As}$ quantum wells |
| S. Kawasaki, T. Aketa, F. Okino, H. Touhara, T. Hattori, T. Nagai and T. Yamanaka | 749 | Stability of C_{70}F_x crystalline under high pressure |
| M. Oestreich, D. Hägele, H.C. Schneider, A. Knorr, A. Hansch, S. Hallstein, K.H. Schmidt, K. Köhler, S.W. Koch and W.W. Rühle | 753 | Direct observation of the rotational direction of electron spin precession in semiconductors |
| S. Bhattacharyya, A.R. James and S.B. Krupanidhi | 759 | Role of growth conditions and Bi-content on the properties of $\text{SrBi}_2\text{Ta}_2\text{O}_9$ thin films |
| M.S. Liu, Y.Z. Tong, L.A. Bursill, S. Prawer, K.W. Nugent and G.Y. Zhang | 765 | Dependence on Al concentration of the optical phonons of $\text{Al}_x\text{Ga}_{1-x}\text{N}$ films |
| A. de Bernabé, M.J. Capitán, H.E. Fischer, C. Quirós, C. Prieto, J. Colino, F. Mompeán and J.M. Sanz | 769 | Combination of specular and off-specular low-angle X-ray diffraction in the study of metallic multilayers |
| C. Issro, P. Winotai and I.M. Tang | 775 | Crystallization of amorphous $\text{Fe}_{78}\text{B}_{13}\text{Si}_9$ ribbons as monitored by Mössbauer spectroscopy |
| J.-L. Sauvajol, K. Chesnel, E. Anglaret, R. Almairac, R. Aznar, P. Boutrouille and B. Hennion | 781 | Inelastic neutron scattering investigation of quenched CsC_{60} phases |
| M. Hübner, J. Kuhl, B. Grote, T. Stroucken, S.W. Koch, R. Hey and K. Ploog | 787 | Transition from superradiant free-polarization decay to subradiant photon-echo |
| R.A. Casali and N.E. Christensen | 793 | Elastic constants and deformation potentials of ZnS and ZnSe under pressure |
| L.E. Golub, E.L. Ivchenko and S.A. Tarasenko | 799 | Interaction of free carriers with localized excitons in quantum wells |
| J.-M. Shi, V.N. Freire and G.A. Farias | 803 | Energy level broadening due to size fluctuation in quantum dots |

I Keywords

VOLUME 108, NUMBER 11

(Published 13 November 1998)

CONTENTS

- | | | |
|---|-----|---|
| M. W. Wu and H. Haug | 809 | Modulation of the dephasing time for a magnetoplasma in a quantum well |
| J. D. Sib, A. Boukra, Y. Bouizem and L. Chahed | 813 | Numerical study of thermal generation current in $a\text{-Si:H}$ based Schottky barrier |
| A. Raghunathan, P. K. Kahol and B. J. McCormick | 817 | Electron localization in-poly(alkoxyanilines) |
| I.-K. Jeong, H.-L. Park and S.-I. Mho | 823 | Photoluminescence of ZnGa_2O_4 mixed with InGaZnO_4 |

- R. N. Costa Filho, D. H. A. L. Anselmo, E. L. Albuquerque and M. G. Cottom
D. Merunka and B. Rakvin
W. Zheng, J. R. Friedman, D. V. Averin, S. Han and J. E. Lukens
T. W. Kim and J. H. Kim
E. N. Bogachek, A. G. Scherbakov and U. Landman
X. Fan, T. Takagahara, J. E. Cunningham and H. Wang
D. X. Li, A. Kimura, Y. Homma, Y. Shiokawa, A. Uesawa and T. Suzuki
Z. Jin, J. Zhang, W. Tang and Y. Du
V. Damodara Das and S. Selvaraj
R. N. Bera and B. Mallik
X. H. Wang and K. A. Chao
Z.-Z. Zhu and B. Tian
C. S. Olsen, J. W. Beeman, K. M. Itoh, J. Farmer, V. I. Ozogin and E. E. Haller

- 827 Non-linear spin-wave spectra in anisotropic magnetic superlattices
833 Isotopic effect detected by a paramagnetic probe in the KH_2PO_4 -type ferroelectric
839 Observation of strong Coulomb blockade in resistively isolated tunnel junctions
845 Effect of an applied electric field on intersubband transitions in strained $\text{In}_x\text{Ga}_{1-x}\text{As}/\text{InP}$ coupled double step quantum wells
851 Nonlinear Peltier effect in quantum point contacts
857 Pure dephasing induced by exciton–phonon interactions in narrow GaAs quantum wells
863 Spin-glass-like behavior of ternary uranium compound U_2AuSi_3
867 New synthesis of polycrystalline $\text{La}_{0.7}(\text{Sr}_x\text{Ca}_{1-x})_{0.3}\text{MnO}_3$ by mechanical alloying
873 Time dependent electrical resistance of $\text{Bi}_2(\text{Te}_{0.4}\text{Se}_{0.6})_3$ thin films in vacuum and on exposure to atmosphere
879 Electrical current oscillations in vapor-adsorbed ferrocene derivatives having two substituted groups
885 Effective charging energy and conductance of ultrasmall tunnel junctions coupled to an external electromagnetic environment
891 Electronic properties of solid $(\text{Al}_{12}\text{B})\text{Li}$ in the CsCl structure
895 Selenium double donors in neutron transmutation doped, isotopically controlled germanium

I Keywords

VOLUME 108, NUMBER 12

(Published 20 November 1998)

CONTENTS

- D. Djajputra and J. Ruvalds
L. Bosi, A. Tavecchio and M. Zelada
S. Fung, Y. L. Luo, C. D. Beling and T. P. Chen
P. E. Lippens and L. Aldon
H. Kawamura, N. Matsui, I. Nakahata, M. Kobayashi, Y. Akahama and I. Shirotani
T. Someya, H. Akiyama and H. Sakaki
W. Henggeler, H.-R. Ott, D. P. Young and Z. Fisk
R. Welter, B. Malaman and G. Venturini
J. Gilchrist
F. Vouilloz, D. Y. Oberli, F. Lelarge, B. Dwir and E. Kapon
X. L. Dong, B. R. Zhao, Z. F. Dong, Z. X. Zhao, W. W. Huang, Y. Z. Zhang, F. Wu, H. Chen, B. Xu, L.-M. Peng, X. F. Duan and L. H. Zhao
J. Elsner, R. Gutierrez, B. Hourahine, R. Jones, M. Haugk and Th. Frauenheim
- 899 On the Hubbard model at half filling
903 On the KCl: Au^+ fluorescence
907 Electrically induced room temperature metastability in semi-insulating GaAs
913 Influence of the Te–Te bonds on the valence bands of Tl–Te compounds
919 Structural studies of NbI_4 at high pressures
923 Shape analysis of wave functions in T-shaped quantum wires by means of magneto-photoluminescence spectroscopy
929 Magnetic ordering in EuB_6 investigated by neutron diffraction
933 MgTGe ($\text{T}=\text{Mn}, \text{Fe}$) compounds of the CeFeSi-type. Magnetic structure of MgMnGe from neutron diffraction study
939 Anomalous after-effect in ferroelectric KH_2PO_4
945 Observation of many-body effects in the excitonic spectra of semiconductor quantum wires
949 Observation of ferromagnetic correlation in phase-separated Cu-rich $\text{La}_2\text{Cu}_{4.003}$
953 A theoretical study of O chemisorption on $\text{GaN}(0001)/(000\bar{1})$ surfaces

- S. K. Arora, R. Kumar, D. Kanjilal, R. Bathe,
S. I. Patil, S. B. Ogale and G. K. Mehta 959 1/f noise properties of a $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ thin film
- J. Hu 965 Absorption of nitrogen atoms in RMn_{12} compounds with $\text{R}=\text{Y}$,
Gd, Tb, Dy, Ho and Er
- I. Shirotani, Y. Konno, Y. Okada, C. Sekine,
S. Todo and T. Yagi 967 Superconductivity of MRhSi ($\text{M}=\text{Ti}$, Zr and Hf) prepared at high
pressure
- D. R. Hines, S. A. Solin, U. Costantino
and M. Nocchetti 971 Unique composition-dependent basal expansion of $\text{CO}_3\text{-Cl}(\text{H}_2\text{O})$
layer double hydroxides
- S. K. Chattopadhyay, A. K. Meikap, K. Lal,
D. Biswas, S. K. Chatterjee, M. Ghosh,
K. Baba and R. Hatada 977 Transport properties of iron nitride films prepared by ion beam
assisted deposition
- D. Das 983 Quantum confinement effects in nano-silicon thin films
- H. Zhao, Z. Liu, J. Shen and Y. Liu 989 Mechanical properties of an ideal electrorheological fluid
- J. Tempere and J. T. Devreese 993 Fringe pattern of interfering Bose-Einstein condensates with a
vortex
- P. Hidalgo, B. Méndez, J. Piqueras, P. S. Dutta
and E. Dieguez 997 Decoration of extended defects in GaSb by Al doping as
evidenced by cathodoluminescence studies
- K. Wissing, J. A. Aramburu, M. T. Barriuso and 1001 Optical properties due to Cr^{4+} in oxides: density functional study
M. Moreno

I Volume 108 Index

XXI Keywords

**“NO COPIES IN WHATEVER FORMAT MAY BE MADE OF
MATERIAL IN THIS MICROFORM. FOR PERMISSIONS
CONTACT THE COPYRIGHT HOLDER ELSEVIER
SCIENCE LTD. THE BOULEVARD, LANGFORD LANE,
KIDLINGTON, OXFORD, ENGLAND OX5-1GB.”**

